

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Yoel ARIELI, et al.

Serial No.: 09 829,435

Group No.: 2877

Filed: April 9, 2001

Examiner: - -

For: SPATIAL AND SPECTRAL WAVEFRONT ANALYSIS AND MEASUREMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.8(a)

I hereby certify that the attached correspondence comprising:

ACKNOWLEDGE POSTCARD
INFORMATION DISCLOSURE STATEMENT
FORM PTO-1449
U.S. PROVISIONAL PATENT APPLICATION SERIAL NO.: 60 196,862
TWENTY-FOUR (24) REFERENCES
EIGHT (8) ARTICLES

is being deposited with the United States Postal Service, with sufficient postage, as first class mail in an envelope addressed to:

Assistant Commissioner for Patents
Washington, D.C. 20231

December 21, 2001

Clifford J. Mass

(type or print name of person mailing paper)

Signature of person mailing paper

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of) Art Unit (N/A)
Yoel ARIELI, et al) Examiner (N/A)
Serial No. 09/829,435) Washington, D.C.
Filed April 9, 2001) December 10, 2001
For SPATIAL AND SPECTRAL WAVEFRONT) Docket No. 1-013396-8
ANALYSIS AND MEASUREMENT)

INFORMATION DISCLOSURE STATEMENT (IDS)

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir,

This Information Disclosure Statement is submitted in accordance with 37 C.F.R. 1.97-1.98, and it is requested that the information set forth in this statement and in the listed documents be considered during the pendency of the above-identified application, and any other application relying on the filing date of the above-identified application or cross-referencing it as a related application.

☒ [X] I. This IDS should be considered, in accordance with 37 C.F.R. 1.97, as it is filed

(Check one of the boxes A-D)

☐ [] A. within three months of the filing date of the above-identified national application or within three months of the entry into the national stage of the above-identified international application

☒ [X] B. before the mailing date of a first office action on the merits

☐ [] C. after (A) and (B) above, but before final rejection or allowance, and Applicants have made the necessary certification (box "i" below) or paid the necessary fee (box "ii" below)

(check one of the boxes "i" and "ii" below)

☐ [] i. Counsel certifies that, upon information and belief, each item of information listed herein was either (a) cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS, or (b) was not cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of undersigned after making reasonable inquiry, was not known to any individual designated in 1.56(c) more than three months prior to the filing of this IDS.

☐ (ii) A check for the fee set forth in 1.17(p), presently believed to be \$240, is enclosed (check no. _____).

☐ (D) after (A), (B) and (C) above, but before payment of the issue fee: Applicant petitions under 37 C.F.R. 1.97(d) for the consideration of this IDS. A check for the fee set forth in §1.17(i), presently believed to be \$130 is enclosed (check no. _____). Counsel certifies that, upon information and belief, each item of information listed herein was either (i) cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the IDS, or (ii) was not cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the undersigned after making reasonable inquiry, was not known to any individual designated in 1.56(c) more than three months prior to the filing of this IDS.

☒ 2. In accordance with 37 C.F.R. 1.98, this IDS includes a list (e.g., form PTO-1449) of all patents, publications, or other information submitted for consideration by the office, either incorporated into this IDS or as an attachment hereto. A copy of each document listed is attached, except as explained below.

(check boxes A and/or B and fill in blanks, if appropriate.)

☐ A. Document(s) _____ is (are) deemed substantially cumulative to document(s) _____, and, in accordance with 1.98(c), only a copy of each of the latter documents is enclosed.

☐ B. Certain documents were previously cited by or submitted to the Office in the following prior application(s), which are relied upon under 35 U.S.C. 120:

[insert serial numbers and filing dates of prior applications]

Applicant identifies these documents by attaching hereto copies of the forms PTO-892 and PTO-1449 from the files of the prior application(s) or a fresh PTO-1449 listing these documents, and request that they be considered and made of record in accordance with 1.98(d). Per 37 C.F.R. 1.98(d), copies of these documents need not be filed in this application.

☐ 3. Document(s) _____ is (are) not in the English language. In accordance with 1.98(e), Applicant states:

☐ An English translation of each document (or of the pertinent portions thereof), or a copy of each corresponding English-language patent or application, or English-language abstract (or claim) is enclosed.

☐ A concise explanation of the relevance of document(s) _____ is found in the attached search report (see reply to Comment 68 in the preamble to the final rules, 1135 OG 13 at 20).

☐ A concise explanation of the relevance of document(s) _____ is set forth as follows:
[Insert concise explanation of relevance]

☐ A concise explanation of the relevance of document(s) _____ can be found on page(s) _____ of the specification.

☐ A concise explanation of document(s) _____ can be found on the attached sheet.

4. No explanation of relevance is necessary for documents in the English language (see reply to Comments 67 and 68 in the preamble to the final rules, 1135 O.G. 13 at 20).

[[5. Other information being provided for the examiner's consideration follows


6. In accordance with 37 C.F.R. 1.97(g) and (h), the filing of this IDS should not be construed as a representation that a search has been made or that information cited is, or is considered to be, material to patentability as defined in §1.56 (b), or that any cited document listed or attached is (or constitutes) prior art. Unless otherwise indicated, the date of publication indicated for an item is taken from the face of the item and Applicant reserves the right to prove that the date of publication is in fact different.

CROSS REFERENCE UNDER 37 C.F.R. §1.78 TO RELATED APPLICATIONS

Pursuant to 37 C.F.R. § 1.78, Applicant notes that the above-identified patent application may be related to the following U.S. Patent Applications:

(1) U.S. Provisional Patent Application Serial no. 60/196,862, entitled "Phase manipulations for spatial and spectral analysis and measurement", filed April 12, 2000.

Respectfully submitted,



JULIAN H. COHEN
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26 WEST 61ST STREET
NEW YORK, NY 10023
REG. NO: 20,302
(212)708-1887

FORM PTO-1449 (Colb)

ATTY DOCKET NO.

SERIAL NUMBER

U-013396-8

09 829,435

LIST OF PATENTS AND PUBLICATIONS
FOR APPLICANT'S INFORMATION
STATEMENT

APPLICANT

Yoel ARIELI et al

FILING DATE

April 9, 2001

GROUP ART UNIT

2877

U.S. PATENT DOCUMENTS

Examiner's Initials	DOCUMENT NO.	DATE	NAME	CLASS	SUB	FILING DATE
AA	5,969,855	Oct. 1999	Ishiwata, et al	359	386	
AB	5,969,853	Oct. 1999	Takaoka	359	370	
AC	5,936,253	Aug. 1999	Sugaya	250	548	
AD	5,870,191	Feb. 1999	Shirley, et al	345	356	
AE	5,814,815	Sep. 1998	Matsumoto, et al	250	311	
AF	5,751,475	May 1998	Ishiwata, et al	359	387	
AG	5,619,372	Apr. 1997	Hellmuth, et al	359	389	
AH	5,600,440	Feb. 1997	Bendall	356	345	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB	TRANS- LATION
AI	JP 9230247	9/1997	Japan			
AJ	JP 9179029	7/1997	Japan			
AK	JP 8094936	4/1996	Japan			

OTHER ART (including Author, Bills, Patent Pages, Etc.)

- AI Phillion D.W. "General Methods for Generating Phase-Shifting Interferometry Algorithms", Applied Optics, Vol. 36, 8098 (1997)
- AM Pluta M. "Stray-Light Problem in Phase Contrast Microscopy or Toward Highly Sensitive Phase Contrast Devices - A review", Optical engineering, Vol. 32, 3199 (1993)

EXAMINER

DATE CONSIDERED

EXAMINER Initial if reference considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. PATENT DOCUMENTS

Examiner's Initials	DOCUMENT NO.	DATE	NAME	CLASS	SUB	FILING DATE
AA	5,471,303	Nov. 1995	Ar, et al.	356	357	
AB	5,446,540	Aug. 1995	Lin	356	345	
AC	5,235,587	Apr. 1993	Bearden, et al.	369	106	
AD	4,407,569	Oct. 1983	Piller, et al.	350	509	
AE	4,190,366	Feb. 1980	Doyle	356	346	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB	TRANS- LATION
AF	JP 7261089	10/1995	Japan			
AG	JP 7225341	8/1995	Japan			
AH	JP 6186504	7/1994	Japan			

OTHER ART (including Author, Bills, Patent Pages, Etc.)

- AI Noda T. and Kawata S., "Separation of Phase and Absorption Images in Phase-Contrast Microscopy", Journal of the Optical Society of America A, Vol. 9, 924 (1992)
- AJ Creath K., "Phase Measurement Interferometry Techniques", Progress in Optics XXVI, 348 (1988)
- AK Greivenkamp J.F., "Generalized Data Reduction for heterodyne Interferometry", Optical Engineering, Vol. 23, 350 (1984)
- AI Morgan C.J., "Least-Squares Estimation in Phase-Measurement Interferometry", Optics Letters, Vol. 7, 368 (1982)

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U.S. PATENT DOCUMENTS

Examiner's Initials	DOCUMENT NO	DATE	NAME	CLASS	SUB	FILING DATE
AA	5,159,474	Oct 1992	Franke, et al	359	29	
AB	5,777,736	Jul 1998	Horton	356	346	
AC	4,653,921	Mar 1987	Kwon	356	353	
AD						
AE						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO	DATE	COUNTRY	CLASS	SUB	TRANS- LATION
AF	EP 0 555 099	8/1993	Europe			
AG	GB 2,315,700	2/1998	Great Britain			
AH						

OTHER ART (Including Author, Bills, Pertinent Pages, Etc.)

AI	Golden L. J. "Zernike Test: Analytical Aspects" Applied Optics, Vol. 16, 205 (1977)
AJ	Bruning J. H. et al. "Digital Wavefront Measuring Interferometry for Testing Optical Surfaces and Lenses", Applied Optics, Vol. 13, 2693 (1974)
AK	
AL	

EXAMINER

DATE CONSIDERED

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